REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on 11/29/2004, and the references cited therewith.

Claims 1-21 are pending in the present application. Claims 2, 9, and 16 are canceled herein. Claim 1 has been amended to incorporate the limitations from claim 2. Claim 8 has been amended to incorporate the limitations from claim 9. Claim 15 has been amended to incorporate the limitations from claim 16.

A check in the amount of $120.00 for a one month extension of time to respond (from February 28, 2005 to March 29, 2005) is enclosed.

Section 102 Rejection of the Claims

Claims 1-21 were rejected under 35 USC 102(b) as being anticipated by De Coene (US 3,610,252).

The Applicants respectfully traverse the Examiner's rejection of all the claims.

The De Coene Reference

De Coene describes a sensor system for specifically detecting grain losses in a combine -- the grain portion of waste matter ejected from a combine. In De Coene, the raw crop material is inserted into a threshing drum 4. It exits the drum after threshing and is directed to shakers 8.

The sensing portion of the De Coene system includes a funnel 14, which directs a portion of material otherwise falling off the end of shaker 8 into a screen 15 which is blown by a blower 16, to remove chaff and permit corn grains to fall on a recording device 17. Once the corn grains hits the diaphragm of the recording device, the grains bounce off and fall to the ground. See the dashed line falling corn path shown in FIGURES 2 and 3.

The recording device 17 is a sensor that includes a diaphragm and electromagnet that hang off the rear end of the combine. The diaphragm is located where the corn portion of the shaken waste material will fall on its way to the ground.

Just below the drumhead is an electromagnet. Current flows through this electromagnet. When a grain of corn falls on the drumhead it bends inward toward the electromagnet. This changes the magnetic flux that couples the electromagnet and the drumhead.

In turn, this change in electromagnetic coupling changes the amount of current passing through the coils of the electromagnet, generating a tiny electrical pulse for each grain of corn that impacts the drumhead.

These tiny electrical pulses are processed in an analog electrical circuit to generate an analog DC current signal. This analog signal is applied to a mechanical meter movement (18) in the operators cab, which moves back and forth indicating the amount of grain losses.

Argument:

Per independent claim 1, nothing in the De Coene reference discloses or suggests a "sensor [] disposed adjacent a laterally-extending tailing auger between adjacent sidewalls of the combine". De Coene discloses a flow of waste material that leaves the separator (not a tailings auger), travels back across various screen separators (not a tailings auger), and is then separated into chaff and grain with a blower (not a tailings auger). The grain is ejected from the rear of the vehicle and is directed to fall on the diaphragm sensor (not a tailings auger), whereupon it bounces off the diaphragm and falls on the ground as wasted grain.

Further, if De Coene's waste grain sensor was disposed to detect tailings flow at some auger inside De Coene's combine (assuming, for the sake of argument there is such an auger), it would change its fundamental mode of operation and no longer indicate the amount of grain losses of the material falling off the back of the shaker 8. It is located at the rear of the vehicle right where the waste is ejected from the shaker 8 since that is the point at which the operator wants to determine corn loss – i.e. the grain portion of the waste material shaken off the rear of the combine.

Per independent claim 8, nothing in the De Coene reference discloses or suggests "a tailing sensor adjacent to a laterally-extending tailings auger between adjacent sidewalls of a combine". See the discussion of claim 1.

Further regarding claim 8, nothing in De Coene suggests "detecting a flow of tailings in a tailings auger". De Coene detects the flow of a grain portion of a fraction of the waste material shaken of the very rear of the combine, which is not in any auger at all.

Per independent claim 15, nothing in the De Coene reference discloses or suggests "means for generating a signal indicative of a flow rate of tailings disposed adjacent to a laterally-extending tailings auger between adjacent sidewalls of the combine". See the discussion above regarding claim 1.

Per claims 4, 11, and 18, De Coene does not disclose or suggest notch filtering.

Per claim 7, 14, and 21, De Coene does not disclose or suggest identifying local minima or digital identification. De Coene is an analog device and does not use digital technology at all.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 901-309-3068 to facilitate prosecution of this application.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O.Box 1450, Alexandria, VA 22313-1450, on this 7th day of March, 2005

Stephen M. Patton	/Stephen Michael Patton #36235/
Name	Signature